Entreprise Networks Telecom Process and infrastructures

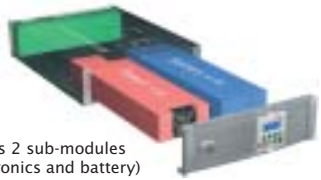
Single phase UPS
Pulsar MX

4/5/8/10/15/20 kVA

High performance UPS upgradeable from 4 kVA to 20 kVA

Continuous power supply

- Two front access hot-swappables sub-modules (power and battery) for maintenance without load interruption.
- Automatic battery test (test period can be set).
- Internal bypass built-in to supply the load even if the UPS fails.
- Large input voltage and frequency ranges to avoid using the batteries unnecessarily.



Pulsar MX has 2 sub-modules (power electronics and battery) which are hot swappable.

Flexible

- Can be used as a free-standing tower unit or 19" rack-mounted: only 3U for Pulsar MX 4000 and 5000, 16U for Pulsar MX Frame
- LCD multilingual display with mimic and LEDs for rapid view of the UPS status, diagnostics and event log
- Outputs: IEC 10A and 16A outlet sockets and hardwired outputs
- Built-in Powershare system for remote reboot of the equipment connected, sequential start-up or load shedding while operating from battery to maintain the power to critical loads.
- Pulsar MX Frame is compatible with three phase or single phase supplies.
- Backup time: 10 mins up to 2 hours by adding 3U battery extension modules.

Paralleling 2 Pulsar MXs using ModularEasy for 2N or N+1 redundancy.

Pulsar MX: 10 minutes backup, tower/rack mounting (3U), mimic, LCD display.

Minimum total cost of ownership (TCO)

- More power with an output power factor of 0.9.
- When the power supply needs to be upgraded, the Pulsar MX 4000 and 5000 can be paralleled to provide 8 kVA or 10 kVA using the ModularEasy kit: without extra cost on the initial purchase.
- Pulsar MX Frame is a modular system with 5 kVA sub-modules paralleled to provide up to 20 kVA or 15 kVA with redundancy.

Pulsar MX Frame 15 and 20 kVA tower and rack-mounting (16U), modular system with 5 kVA sub-modules.

THE UNINTERRUPTIBLE POWER PROVIDER

Can be used for 20 to 110 servers, ideal for:

- departmental networks, servers and workstations

The power level can be upgraded simply and without interruption for the existing loads as the number of loads supplied is increased.

Can be built in to high density racks.

Redundancy for highly critical applications.

MGE UPS SYSTEMS

Communications

- Solution Pac 2 suite supplied for remote supervision.
- MGE's Enterprise Power Manager for supervision via Ethernet and Teleservice. EPM is compatible with standard network management systems (Tivoli, CA unicenter, HP Openview).
- Compatible with Network Shutdown Module for monitoring a number of UPSs and shutting down the servers on the network.

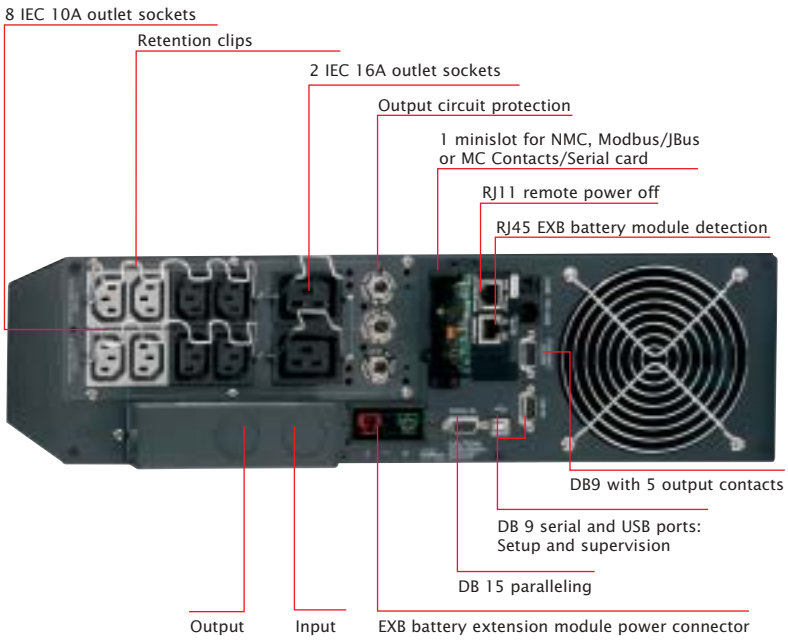
MGE PowerServices™

- 1 year guarantee, including batteries.

Associated services (1)

- Extended guarantee.
- Commissioning.
- Teleservice (in-band and out-of-band).
- Personalised maintenance contracts.

1: Depending on the country, see *www.mgeups.com/services*.


8 IEC 10A outlet sockets
Retention clips
2 IEC 16A outlet sockets
Output circuit protection
1 minislot for NMC, Modbus/JBus or MC Contacts/Serial card
RJ11 remote power off
RJ45 EXB battery module detection
DB9 with 5 output contacts
DB 9 serial and USB ports: Setup and supervision
DB 15 paralleling
Output
Input
EXB battery extension module power connector

Specifications

Pulsar MX RT Rating (kVA) / (kW)	**4 kVA** 4 kVA / 3,6 kW	**5 kVA** 5 kVA / 4,5 kW	**15 kVA**(1) 15 kVA / 13, 5 kW	**20 kVA**(1) 20 kVA / 18 kW
Paralleling				
Maximum rating / redundancy(2)	8 kVA / 4 kVA + 4 kVA redundancy	10 kVA / 5 kVA + 5 kVA redundancy	15 kVA / 10 kVA + 5 kVA redundancy 5 kVA + 2 x 5 kVA redundancy	20 kVA / 15 kVA + 5 kVA redundancy 10 kVA + 2 x 5 kVA redundancy
Inputs				
Technology	VFI-SS-113, on-line double conversion with power factor correction, convection cooled static bypass switch			
Number of phases, input connections	L + N, terminals up to 6 mm²		L + N or 3P + N, terminals up to 35 mm², separate or common AC normal and AC bypass	
Nominal voltage	200/208/220/230/240/250 V		200/208/220/230/240/250 V (L + N) or 380/400/415 V (3P + N)	
Voltage range without using battery(3)	120 - 280 V		120 - 280 V (L + N), 250 - 465 V (3P + N)	
Input frequency range, THDI	40-70 Hz, < 7%			
Outputs				
Output connections(4)	terminals + 8 IEC C13 (10A) + 2 IEC C19 (16A)		terminals + 16 IEC C13 (10A) + 4 IEC C19 (16A)	
Remotely controlled Powershare sockets	2 groups (2 IEC C13 10A per group)		2 groups (4 IEC C13 10A per group)	
Output voltage and frequency(5), THDU, efficiency(6)	200/208/230/240 /250 V, 50 / 60 Hz autoselect, frequency converter as standard, <2%, 97%			
Backup time(7)				
Pulsar MX standard backup time	10 minutes	8 minutes	8 minutes	
Pulsar MX + EXB / MX + 2 EXB / MX + 3 EXB	45 / 80 / 120 minutes	35 / 60 / 95 minutes	20 minutes(8) / 35 minutes(9)	
Communications				
Slots	1 minislot or 2 minislots (Frame) compatible with Minislot NMC, NMC ModBus/JBus, MC Contacts/Serial			
Ports	Remote Power off (RJ11), 5 output contacts (DB9), setup using Solution-Pac(10) (USB and DB9-serial ports), EXB module detection (RJ45), paralleling (DB 15)			
Operating conditions, standards and approvals				
Performance, safety, EMC, surge protection	IEC/EN 62 040-3, IEC/EN 62 040-1-1, IEC/EN 62 040-2 class A (class B as option), 4 kV IEC 61 643, UL 1778 and CSA 22.2(11)			
Operating temperature, noise, approvals, guarantee	0°C to 40°C continuous, 45 dbA(12), UL, TüV, GS mark, CB, C-Tick, CE, IEC 61 931, one year(13)			
Dimensions / weight				
Pulsar MX RT standard backup tower	444.5 mm high x 130.6 mm wide x 735 mm deep / 57 kg		Tower 690 mm high (795 mm casters) x 444.5 mm wide x 735 mm deep / 250 kg	
Pulsar MX RT standard backup rack	3U x 444.5 mm wide compatible with 800-1000 mm deep rack		Rack 16U x 444.5 mm wide, compatible with 800-1000 mm deep rack	
MX EXB battery unit tower / rack	444.5 mm high x 130.6 mm wide x 650 mm deep / 3U x 444.5 mm wide / 70 kg		dimensions same as MX Frame / 230 kg for 15 kVA, 290 kg for 20 kVA	
Pulsar MX ModularEasy, paralleling kit	dimensions same as EXB battery unit / 10 kg		-	

1: Available from November 2006. **2:** 2 Pulsar MXs can be paralleled using ModularEasy. **3:** At 70% load. **4:** 4 IEC C13 (10A) 2 m long cables for use with retention clips (8 cables for use with Pulsar MX Frame). **5:** Frequency conversion for non-paralleled units only. **6:** Economy mode, 91% in normal mode. **7:** At 70% nominal rating with power factor 0.7 typical values after 3 charge/discharge cycles, with 3-5 year old batteries. Weekly battery test without interrupting the load (daily or monthly if required). EXB compatible with 0.8 power factor loads. **8:** With Pulsar MX Frame EXB (4 battery units). **9:** With Pulsar MX Frame EXB (8 battery units). **10:** Solution-Pac CD-ROM supplied as standard. **11:** Applicable to US models. **12:** 50 dbA above 5 kVA. **13:** Depending on the country, see *www.mgeups.com/service*. **14:** 68 513 = 68 526 (empty Pulsar MX Frame) + 3 x 68 524 + 3 x 68 523. **15:** 68 514 = 68 526 (empty Pulsar MX Frame) + 4 x 68 524 + 4 x 68 523.

Part numbers

	Pulsar MX 4000 RT	**Pulsar MX 5000 RT**	**Pulsar MX 15000 Frame 16U**	**Pulsar MX 20000 Frame 16U**
Pulsar MX RT Tower or rack-mounting: standard backup time	68 501	68 504	68 513(14) (with rack kit, casters, NMC card)	68 514(15) (with rack kit, casters, NMC card)
Pulsar MX RT Netpack: standard backup time + NMC + rack kit	68 502	68 505		
Pulsar MX EXB RT : battery extension module	68 515		68 527 (Pulsar MX Frame EXB empty to be fitted with 4 or 8 Battery sub-modules)	
Pulsar MX ModularEasy: paralleling kit (2 Pulsar MX)	68 520		-	
MX / EXB RT Rack Kit: rail kit for 19" rack mounting	68 002		-	
IEC 32 A kit , 2 X 2 m long cables: male to hardwired and female to hardwired	68 525		-	
Pulsar MX Battery / Power electronics sub-module	68 524 / 68 522	68 524 / 68 523	68 524 / 68 523	

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